

Work Order ID 100757

May 1, 2013 7:08:42 AM

100757

Page 1

Item ID: D3023-1

Accept

Revision ID:

Item Name: Back Panel

Start Date: 4/30/13

Start Qty: 4.00

3
/
/

Required Date: 4/30/13

Req'd Qty: 1.00

Reference:

Approvals: Process Plan:

AD

Date: 13-05-1

Tooling:

QC:

Date:

SPC (Y/N):

Work Center ID

Description

Setup/Run Hours

Draw Nbr

Revision Nbr

D3023

Rev A

100

100

Waterjet

FLOW CNC Waterjet

2024.032

Memo

I-Cut as per Dwg D3023

Dwg Rev: A

Prog Rev: A

***grain direction along 28.100" ***

2-Deburr if necessary

110

QC2- Inspect parts off machine FAI/FAIB

0.00

110

QC

Quality Control

Memo

0.00

N900040100

Setup

Start

NS1

Stop

NS2

Cust Item ID:

Customer:

Run

Start

NR1

Stop

NR2

Date:

Date:

Tool ID

Tool No.

Plan

Code

Accept Qty

Reject Qty

Reject Number

Exp.

Stamp

3 0

Jm30731

3 0

Jm13-0731

NCR: Yes / No

DQA: Date:

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order: _____				DISPOSITION		AGAINST DEPARTMENT/PROCESS									
				Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>	Skid-tube <input type="checkbox"/> Machining <input type="checkbox"/> Thermoforming <input type="checkbox"/> Large Fab <input type="checkbox"/>	Crosstube <input type="checkbox"/> Small Fab <input type="checkbox"/> Finishing <input type="checkbox"/> Composite <input type="checkbox"/>	Water Jet <input type="checkbox"/> Prod. Eng. Coor. <input type="checkbox"/> Rec/Store/Packaging <input type="checkbox"/> Supplier <input type="checkbox"/>	Engineering <input type="checkbox"/> Quality <input type="checkbox"/> Other <input type="checkbox"/>							
Part No. _____															
NCR No. _____															
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector						
Doc/Data															
Equip/Tooling															
Operator															
Material															
Setup															
Other															
Process															
Supplier															
Training															
Unapproved															
FAULT CATEGORY															
Landing Gear <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped. <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube				General <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio		<input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions				<input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge		<input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled			
														<input type="checkbox"/> Other	

Work Order ID 100757

May 1, 2013 7:08:42 AM

100757

Page 2

Item ID: D3023-I

Accept

N900040100

Setup

Start

NS1

Revision ID:

Item Name: Back Panel

Stop

NS2Start Date: 4/30/13 Start Qty: 1.00 ***1***

Cust Item ID:

Required Date: 4/30/13 Req'd Qty: 1.00 ***1***

Customer:

Reference:

Approvals: Process Plan:

Date:

Tooling:

Date:

Run

Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2Sequence No:
Work Center IDOperation
DescriptionTotal Up/
Run Hours

Item ID

Toolin

Plan

Accept

Reject

Reject-

Stamp

Number

Insp.

120

QC8- Inspect parts - second check

0.00

120

QC

Memo

0.00

⑤ 13-07-31 PD

Quality Control

130

Form as per dwg

0.00

130

Brake NC

Memo

0.00

Brake NC

SB
13/07/11

140

QC5- Inspect part completeness to step on W/O

0.00

140

QC

Memo

0.00

Quality Control

3

⑥ 13-07-31 PD

NCR: Yes / No

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order: _____			DISPOSITION			AGAINST DEPARTMENT/PROCESS					
			Rework <input type="checkbox"/>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>				
			Scrap <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coor. <input type="checkbox"/>	Quality <input type="checkbox"/>				
			Use-as-is <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>				
			Work Order Update <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>					
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector		
Doc/Data											
Equip/Tooling											
Operator											
Material											
Setup											
Other											
Process											
Supplier											
Training											
Unapproved											
FAULT CATEGORY											
Landing Gear	General										
	Bending <input type="checkbox"/>	Bend <input type="checkbox"/>		Grain <input type="checkbox"/>	Ovalized <input type="checkbox"/>	Pressure/Forced <input type="checkbox"/>					
	Centre Not Concentric to O/S <input type="checkbox"/>	BOM/Route <input type="checkbox"/>		Hardware <input type="checkbox"/>	Over/Under tolerance <input type="checkbox"/>	Temperature/Cure <input type="checkbox"/>					
	Cracks <input type="checkbox"/>	Broken/Damaged <input type="checkbox"/>		Inspection Incomplete <input type="checkbox"/>	Part Incorrect <input type="checkbox"/>	Weld <input type="checkbox"/>					
	Crushed/Crimped <input type="checkbox"/>	Burrs <input type="checkbox"/>		Instructions Incomplete/Unclear <input type="checkbox"/>	Part Lost/Missing <input type="checkbox"/>	Wrong Stock Pulled <input type="checkbox"/>					
	Cuffs <input type="checkbox"/>	Contamination <input type="checkbox"/>		Maintenance <input type="checkbox"/>	Part Moved <input type="checkbox"/>						
	Heat Treat <input type="checkbox"/>	Countersink <input type="checkbox"/>		Mislabeled <input type="checkbox"/>	Positioned Wrong <input type="checkbox"/>						
	Inspection Strip in Tube <input type="checkbox"/>	Cut Too Short <input type="checkbox"/>		Misread <input type="checkbox"/>	Power Loss/Surge <input type="checkbox"/>	Other <input type="checkbox"/>					
	Ripples in Bend <input type="checkbox"/>	Drill Holes <input type="checkbox"/>		Offset <input type="checkbox"/>							
	Torque Waves in Extrusion <input type="checkbox"/>	Drawing <input type="checkbox"/>		Out of Calibration <input type="checkbox"/>							
	Turning Sequence <input type="checkbox"/>	Finish <input type="checkbox"/>		Out of Sequence <input type="checkbox"/>							
	Wave/Twist in Tube <input type="checkbox"/>	Folio <input type="checkbox"/>		Outside Dimensions <input type="checkbox"/>							

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100757

Page 3

Item ID: D3023-1

Accept

N900040100

Setup

Start

NS1

Revision ID:

Item Name: Back Panel

Stop

NS2Start Date: 4/30/13 Start Qty: 1.00 ***1***

Cust Item ID:

Required Date: 4/30/13 Req'd Qty: 1.00 ***1***

Customer:

Reference:

Approvals: Process Plan:

Date:

Tooling:

Date:

Run

Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2Sequence ID/
Work Center IDOperation
Description

180

Identify as per dwg & Stock Location: W/A 001Net P/
Run Hours

Run

Tool #

Plan
CodeAccept
Qty.Reject
Qty.Reject
NumberInsp.
Stamp***180***

Packaging

Memo

0.00

(3)

R 13-8-1

190

QC21- Final Inspection - Work Order Release

0.00

190

QC

Memo

0.00

MW 13-0809

Quality Control

MF
13-8-01

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

DQA: _____ Date: _____

QA Closed: _____ Date: _____

Work Order: _____ Part No. _____ NCR No. _____				DISPOSITION		AGAINST DEPARTMENT/PROCESS					
				<input type="checkbox"/> Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update	<input type="checkbox"/> Skid-tube <input type="checkbox"/> Machining <input type="checkbox"/> Thermoforming <input type="checkbox"/> Large Fab	<input type="checkbox"/> Crosstube <input type="checkbox"/> Small Fab <input type="checkbox"/> Finishing <input type="checkbox"/> Composite	<input type="checkbox"/> Water Jet <input type="checkbox"/> Prod. Eng. Coor. <input type="checkbox"/> Rec/Store/Packaging <input type="checkbox"/> Supplier	<input type="checkbox"/> Engineering <input type="checkbox"/> Quality <input type="checkbox"/> Other			
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector		
Doc/Data											
Equip/Tooling											
Operator											
Material											
Setup											
Other											
Process											
Supplier											
Training											
Unapproved											
FAULT CATEGORY											
Landing Gear <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped. <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube				General <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio <input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions						<input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge	<input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled

Picklist Print

May 1, 2013 7:08:42 AM

Page 1

Work Order ID: 100757

Parent Item: D3023-1

Parent Item Name: Back Panel

Start Date: 4/30/13

Required Date: 4/30/13

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP C02.01.23Revised NG
IPP Rev:D 08-04-16 now water jet DD verified by:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M2024T3S.032 2024-T3 .032 sheet		Purchased	No			100	sf	629.1812	2.8777	3,629.1579	3.20	S.F.	Jn3-07-31

Location	Loc Qty	Loc Code
118523	182	
121309	68.656	
123096	27.6	
123574	81.9	
124987	277.529	124987

NCR: Yes / No

WORK ORDER NON-CONFORMANCE / UPDATE

DQA: Date:

QA Closed: _____ Date: _____

Work Order: _____				DISPOSITION		AGAINST DEPARTMENT/PROCESS					
				Rework Scrap Use-as-is Work Order Update	Skid-tube Machining Thermoforming Large Fab	Crosstube Small Fab Finishing Composite	Water Jet Prod. Eng. Coor. Rec/Store/Packaging Supplier	Engineering Quality Other			
Part No. _____ NCR No. _____											
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector		
Doc/Data											
Equip/Tooling											
Operator											
Material											
Setup											
Other											
Process											
Supplier											
Training											
Unapproved											
FAULT CATEGORY											
Landing Gear				General							
Bending	Bend	Grain	Ovalized	Pressure/Forced							
Centre Not Concentric to O/S	BOM/Route	Hardware	Over/Under tolerance	Temperature/Cure							
Cracks	Broken/Damaged	Inspection Incomplete	Part Incorrect	Weld							
Crushed/Crimped	Burrs	Instructions Incomplete/Unclear	Part Lost/Missing	Wrong Stock Pulled							
Cuffs	Contamination	Maintenance	Part Moved								
Heat Treat	Countersink	Mislabeled	Positioned Wrong								
Inspection Strip in Tube	Cut Too Short	Misread	Power Loss/Surge								
Ripples in Bend	Drill Holes	Offset									
Torque Waves in Extrusion	Drawing	Out of Calibration									
Turning Sequence	Finish	Out of Sequence									
Wave/Twist in Tube	Folio	Outside Dimensions									

DART AEROSPACE LTD	Work Order:	100757
Description: Back Panel	Part Number:	D3023-1
Inspection Dwg: D3023	Rev: A	Page 1 of 1

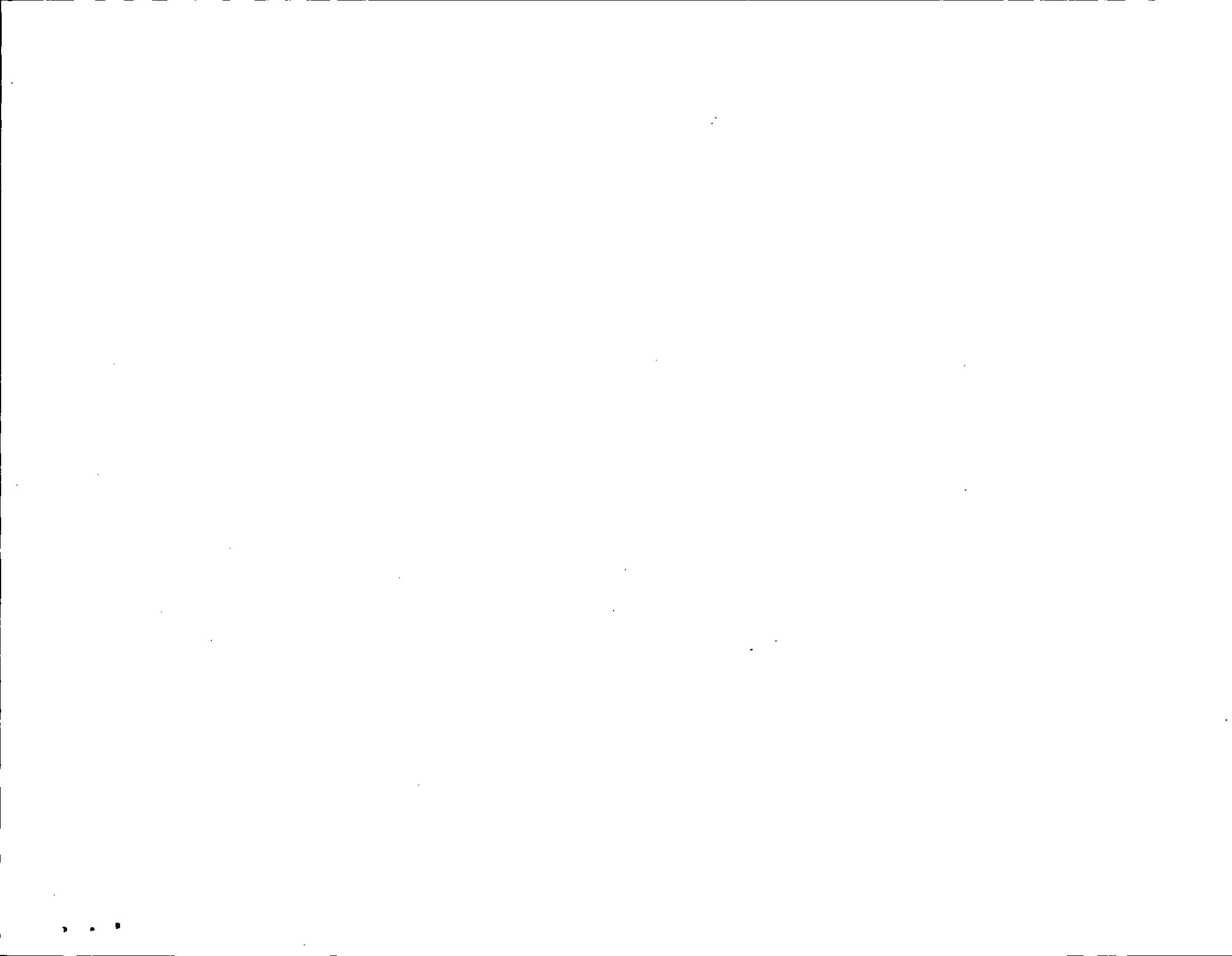
FIRST ARTICLE INSPECTION CHECKLIST

First Article Prototype

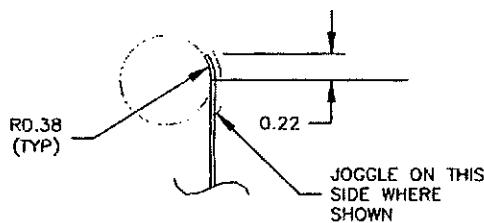
Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
00.128	+0.005/-0.001	0.129"	-			
00.191	+0.005/-0.001	0.193"	-			
1.660	+/-0.010	1.662"	-			
0.375	+/-0.010	0.378"	-			
1.340	+/-0.010	1.344"	-			
2.375	+/-0.010	2.378"	-			
0.375	+/-0.010	0.376"	-			
25.28	+/-0.030	25.28"	-			
27.03	+/-0.030	27.03"	-			
28.10	+/-0.030	28.10"	-			
1.30	+/-0.030	1.306"	-			
2.375	+/-0.010	2.373"	-			
8.711	+/-0.010	8.71"	-			
5.597	+/-0.010	5.597"	-			
8.57	+/-0.030	8.57"	-			
1.970	+/-0.010	1.974"	-			
7.42	+/-0.030	7.42"	-			
10.92	+/-0.030	10.92"	-			
14.75	+/-0.030	14.75"	-			

Measured by:	Jm	Audited by:	PD	Prototype Approval:	N/A
Date:	13-07-31	Date:	13-07-31	Date:	N/A

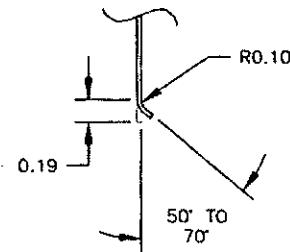
Rev	Date	Change	Revised by	Approved
A	08.11.27	New Issue	KJ/EC	DA



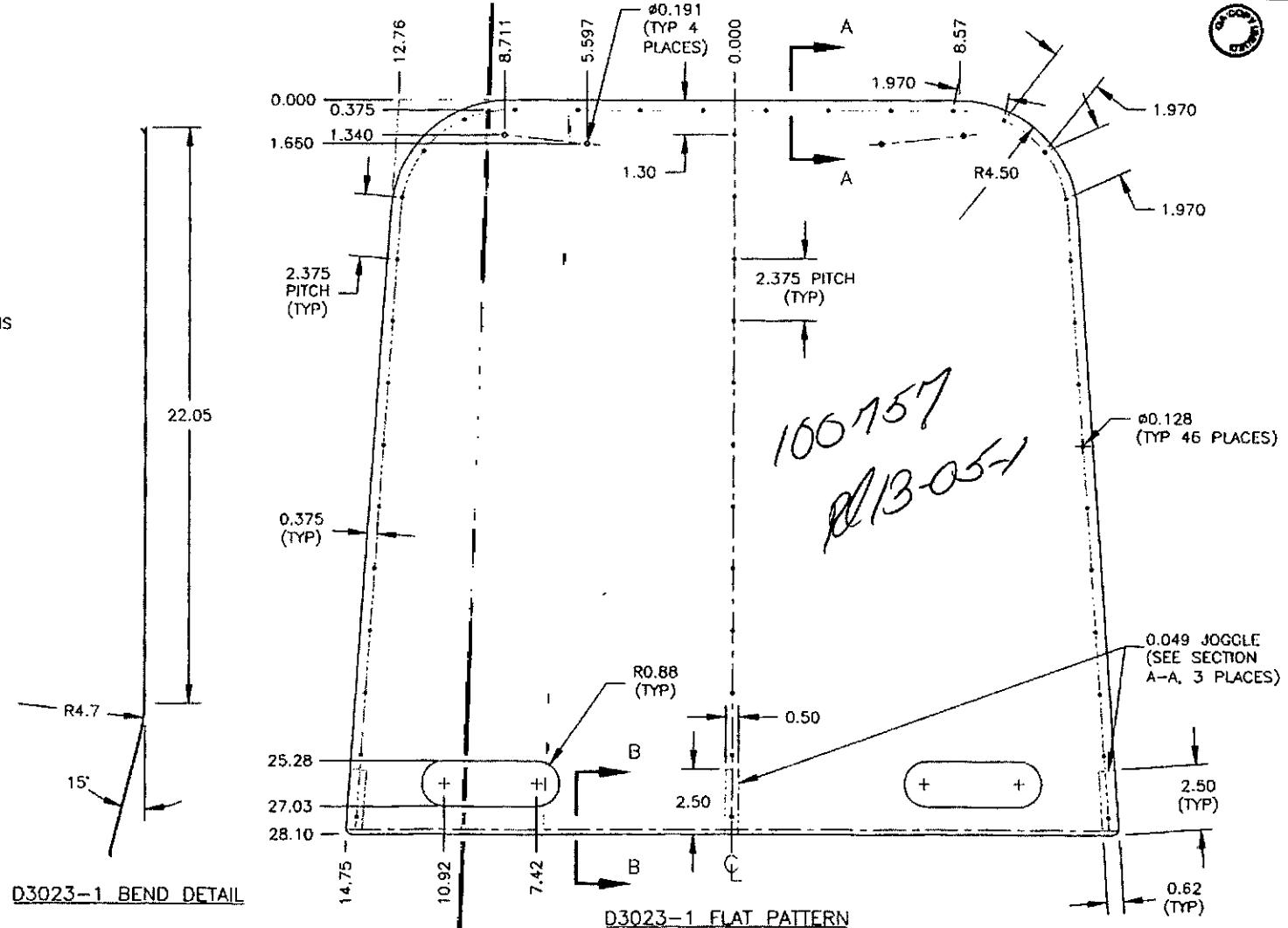
SECTION A-A
SCALE 1:1
(TYPICAL, EXCEPT WHERE SHOWN)



SECTION B-B
SCALE 1:1
(BOTTOM EDGE ONLY)



D3023-1 BEND DETAIL



RELEASED
06.07.07

D3023-1 BACK PANEL:

- 1) MATERIAL: 2024-T3 (QQ-A-250/4) 0.032 THICK
- 2) FINISH: ACID ETCH & ALODINE PER DART QSI 005 4.1
POWDER COAT GREY SANTEX (REF 4.3.5.6) PER DART QSI 005 4.3
- 3) ALL DIMENSIONS ARE IN INCHES.
- 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.

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DART AEROSPACE LTD.

A	01.05.18	NEW ISSUE	DART AEROSPACE LTD. MARKHAM, ONTARIO CANADA
DESIGN	SP	DRAWN BY	DART
CHECKED		APPROVED	DRAWING NO.
			D3023
DATE	01.05.18	TITLE	REV. A
		BACK PANEL	SHEET 1 OF 1
			SCALE

